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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/727,528	12/05/2003	Thomas Johnson	01311.001006.1	7337
5514	7590	03/25/2004	EXAMINER	
FITZPATRICK CELLA HARPER & SCINTO 30 ROCKEFELLER PLAZA NEW YORK, NY 10112				SHINGLETON, MICHAEL B
ART UNIT		PAPER NUMBER		
2817				

DATE MAILED: 03/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/727,528	Johnson et al.
Examiner	Group Art Unit	
SHINGLETON	2817	

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE Three MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

Responsive to communication(s) filed on 12-5-2003

This action is **FINAL**.

Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

**Disposition of Claims**

Claim(s) 5-8  are pending in the application.

Of the above claim(s) \_\_\_\_\_  is/are withdrawn from consideration.

Claim(s) \_\_\_\_\_  is/are allowed.

Claim(s) 5-8  are rejected.

Claim(s) \_\_\_\_\_  is/are objected to.

Claim(s) \_\_\_\_\_  are subject to restriction or election requirement

**Application Papers**

The proposed drawing correction, filed on \_\_\_\_\_ is  approved  disapproved.

The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner

The specification is objected to by the Examiner.

The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. § 119 (a)-(d)**

Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).

All  Some\*  None of the:

Certified copies of the priority documents have been received.

Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.

Copies of the certified copies of the priority documents have been received  
in this national stage application from the International Bureau (PCT Rule 17.2(a))

\*Certified copies not received: \_\_\_\_\_

**Attachment(s)**

Information Disclosure Statement(s), PTO-1449, Paper No(s). 2/2/c4 12/5/03  Interview Summary, PTO-413

Notice of Reference(s) Cited, PTO-892  Notice of Informal Patent Application, PTO-152

Notice of Draftsperson's Patent Drawing Review, PTO-948  Other \_\_\_\_\_

**Office Action Summary**

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eisenberg et al. 6,452,446 (Eisenberg) in view of Shapira et al. 6,640,110 (Shapira).

Figure 2 of Eisenberg discloses a feed-forward amplifier arrangement. A feed-forward amplifier arrangement by definition has a signal cancellation circuit and a distortion cancellation circuit. Eisenberg clearly recognizes that the amplifier arrangement is a power amplifier arrangement for a RF communications system (See column 1, around line 17). The reference is silent as to what type of communication system is employed. Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have employed Eisenberg in a cellular communication system because as Eisenberg is silent on exact communication system, any conventional communications system would be usable therewith such as the conventional cellular system. Eisenberg clearly recites that the distortion cancellation is at least 35dB (See column 10, around line 57). This distortion cancellation is assumed to be over the entire operational frequency response of the amplifier arrangement. Eisenberg also discloses that the arrangement is for systems that employ "multicarrier" inputs (See column 5, around line 65). Eisenberg is silent on naming the bandwidth of the system. A cellular band of operation is well known to be from 806 to 902 MHz. This forms a bandwidth of greater than 75 MHz.

As exemplified by Shapira it is well known to employ the linearized power amplifier arrangement in a cellular communication arrangement that handles multi-carriers and employs a wide bandwidth that comprises at least the whole operator-allocated band (See column 11, around line 50).

Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to have designed the amplifier of Eisenberg to have a bandwidth of at least 75MHz and use the amplifier of Eisenberg in a cellular communications arrangement as exemplified by Shapira. One would

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have been motivated to make the modification so as to provide a single linearized power amplifier over the entire bandwidth or operator-allocated band of a communications system as suggested by Shapira.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael B. Shingleton whose telephone number is 571-272-1770. The examiner can normally be reached on Monday-Thursday from 8:00 to 4:30. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pascal, can be reached on (571)-272-1769. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

MBS

February 16, 2004

MARCH

*Michael B. Shingleton*  
MICHAEL B. SHINGLETON  
PRIMARY EXAMINER  
GROUP PART II UNIT 2817